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ABSTRACT

After reviewing previous research on communication in organizations, the Organizational Communication Division of the International Communication Association (ICA) decided, in 1971, to develop its own measurement system, the ICA Communication Audit. Rigorous pilot-testing, refinement, standardization, and application would allow the construction of a normed, computerized data bank, which could be used both for comparisons between organizations and to test organizational communication theories. Phase 1, the development of audit procedures and instruments, lasted three and one-half years and involved 163 researchers and practitioners from six countries. Phase 2, the pilot-testing of the procedures and instruments, lasted two years, included ten pilot tests, and resulted in revised instruments and procedures, organizational structure for the audit, and a plan for disseminating results and information. Phase 3, the implementation of audit procedures, is now underway and offers researchers the advantages of externally valid findings derived from a commonly employed methodology. (AA)

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THE ICA COMMUNICATION AUDIT: RATIONALE AND DEVELOPMENT

by

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Paper presented at the Pacific Communication Association meeting in Kobe, Japan, June, 1976, at the Philippine-American Communication Conference in Manila, July, 1976, and at the Academy of Management convention in Kansas City, August, 1976. Dr. Goldhaber is the Director of the ICA's Communication Audit Project. This paper is the product of five years of thinking, testing and development contributed by over 100 persons, especially Harry Dennis, Cary Richetto and Tom Porter.

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PART ONE: RATIONALE

One prominent view of organizational communication is that if communication is bad, an organization is likely to have problems and if it is good, an organization's performance and overall effectiveness will also be good (Roberts and O'Reilly, 1973). This thinking seems to derive from Likert (1967) who presented communication as an "intervening variable" effected by such "causal variables" as leadership behavior, organizational climate and organizational structure and affecting such "end result variables" as job satisfaction, productivity and profits.

Evidence to support Likert's theory has been provided by Mann, Indik and Vroom (1963), Likert himself (1961, 1967), Marrow, Seashore and Bowers (1967), Bowers and Mann (1969), and Seashore and Bowers (1970). In one study, Likert and Bowers (1968) reported correlations between a communication index and four monthly performance indexes to be -.57, -.58, -.67, and -.68. More recently, Hain and Widgery (1973) found that a communication index correlated with job satisfaction (.68) and supervisory leadership (-.76). Likert (1973) reported correlations from .55 to .83 between communication variables and organizational performance measures. Dennis, Richetto and Wiemann (1974) found a significant relationship between <u>perceived</u> organizational effectiveness and both communication satisfaction and communication climate (.59 and .61, respectively). Finally, Hain and Tubbs (1974) reported significant Spearman-Rank difference correlations (using only <u>five</u> departments) between a communication index and absenteeism (.60), grievances (1.00), and efficiency (.60).

Before you conclude, however, that Likert must have been right, at least regarding the relationship between communication and organizational performance, contradictory findings must also be examined. For example, Miles (1966), Farris (1968), Smith (1969), Morse (1970), Lawrence and Lorsch (1970) and

Cummins (1970) all provided data to refute portions of Likert's model. Building on the work of Lawrence and Lorsch, Hain (1972) extended Likert's model by distinguishing between "external causal variables" (e.g., market and economical, legal-political, and socio-cultural) and "internal causal variables". Of direct import to the linkage between communication and organizational performance has been the work of Burhans (1971) who found that communication satisfaction correlated insignificantly with self-reports of productivity (-.08 and -.03), Jain (1972) who found no relationship between employee knowledge of compensation policies and supervisory performance scores, Goodnight, et.al. (1974) who found that communication satisfaction did not correlate with productivity (-.02), and Hazen and Balthrop (1975) who reported correlations from .02 to .17 between communication satisfaction and productivity. In addition to finding no significant relationships between communication climate and such performance measures as job satisfaction (.14), managerial ratings (.11) and absenteeism (.10), Dennis (1975), in a landmark dissertation, provided evidence relating communication more closely to organizational climate (a causal variable) than to peer leadership and group process (intervening variables). Dennis criticizes the conceptual framework underlying Likert's model by showing that Likert himself appears to confuse communication's role by first labeling it "intervening" and then listing "communication flow" as one of the six factors contributing to organizational climate (a causal variable). Furthermore, Likert suggests that only causal variables can be controlled or changed by the organization, and yet communication is typically one of the least threatening variables for organizational change intervention purposes (Richetto, 1974).

Hain (1972) suggests that these seemingly contradictory findings may be traced to methodological or organizational differences. Regardless of their origin, the fact that the evidence is weighty on both sides leads me to conclude

that as of today, we just don't know whether communication effectiveness and/or satisfaction has a positive (or negative) effect on organizational performance and effectiveness. Further, I would suggest that this point is moot as far as justifying communication's importance to any organization.

Importance of Communication to Organizations*

Almost four decades ago, Chester Barnard (1938) described the main task of an executive as communication, "in an exhaustive theory or organization, communication would occupy a central place, because the structure, extensiveness, and scope of the organization are almost entirely determined by communication techniques." Thirty years later, Beckhard (1969) listed several variables directly or indirectly related to communication as characteristics of a healthy organization. Researchers (see e.g., Conrath, 1974; Goldhaber, 1974; Redding, 1964, 1972; Roberts and O'Reilly, 1974) and practitioners (see e.g., Greenbaum and White, 1975; Haney, 1973) alike have agreed on the importance of communication to organizations. Some have even called it "management's sacred cow." (Higham, 1953) As Roberts and O'Reilly (1973) have stated, "communication in one form or another, occupies most of a manager's time and possibly that of other workers." It has even been said (Porter and Roberts, 1972) that "communication is everywhere in organizations. . . that it is the 'water' that the organizational researcher 'fish' seem to discover last."

Using a social systems perspective (Katz and Kahn, 1966), we can easily see the truth of Porter and Roberts' statement. An organization receives its physical and energic inputs, accomplishes its work goals and interfaces with the enviroment all through communicative acts. As Wiio (1974) has said, "the

*Much of the rationale for this section of the paper was developed with H. Dennis and will appear in the forthcoming book, Organizational Communication Development by G. Goldhaber, H. Dennis, G. Richetto, and O. Wiio (Prentice-Hall, 1977).

relative openness of an organization as a system depends on the amount of interchange of information between the organization and its environment."

Thus, an organization exists when humans use communication to establish relations between people who are assigned (or assume) roles and divide efforts to use resources to achieve objectives. As the behavioral decision theorists (see, e.g., Simon, 1945; March and Simon, 1958; Cyert and March, 1963) contend, communication is critical here because people use information to make choices among a range of alternatives. The information they receive and send is a function of their role and relationship in their organization. In this context, communication may be seen operating as a dependent (or as Likert,1976, has recently said, "symptomatic variable"). Making choices based on information will help people control entropy, or remove "equivocality from the informational environment" (Weick, 1969). Whether the task is resolving interdepartmental conflicts, reducing employee dissatisfaction or stopping the unwieldy flow of rumors, information is needed by the participants to control the entropy associated with the event.

When people send or receive information and attach meaning to it, the result is a message whose ultimate impact on the sender or receiver is to confirm or disconfirm actions undertaken or attitudes, beliefs and values held by both sender and receiver. Then, during the confirming or disconfirming process, individuals typically restore old behaviors, discontinue, reinforce or change existing behaviors, or initiate new behaviors. In this context, communication may be seen as an independent, or causal variable with direct impact upon human interactive patterns.

Thus, the importance of communication to any organization is not in its methodological role as either a causal or intervening variable. Since it can be either or both simultaneously, its salience as the process which connects

the system parts to each other and the system to its environment, justifies its prominence.

Measurement of Communication in Organizations

The value of organizational communication measurement techniques seems obvious. As Roberts and O'Reilly (1974) have said, if "good communication makes a difference--then an understanding of what is good communication and its correlates should increase our knowledge of organizational behavior." Three reasons seem to justify the efforts involved: diagnosis; evaluation; and control.

1. Diagnosis- identifying communication strengths and weaknesses can help an organization design relevant training programs (should training be a desired intervention). Findings from the communication diagnosis could be directly incorporated into the training program.

2. Evaluation- measurement values on selected communication behaviors or attitudes could be compared with similarly collected data after an organizational intervention, thus serving as a pre-post measure of intervention effectiveness.

3. Control- early identification of communication problems will allow organizations to develop and implement remedial steps before the problems can escalate beyond control. Much like the preventative function of an annual physical, early diagnosis helps an organization to control its communication system rather than be controlled by it.

Despite the agreed upon value of measuring organizational communication, a careful review of the literature indicates that the rhetoric of action has not resulted in significant accomplishment. In 1965, Guetzkow concluded that there was a dearth of studies about communication in organizations. Seven years later, Redding (1972) told us that "the total output of reasonably scientific, empirically-data-based-research efforts is very small indeed." Porter and Roberts (1972) advised the consumer of organizational communication research findings to follow the "principle of caveat emptor." Price (1972), after reviewing techniques available to measure a wide variety of variables contributing to organi-

zations, concluded that "the measurement of communication is a neglected topic." Small wonder that Dennis (1975), himself an organizational communication specialist, raised the doubt as to whether his fellow experts could answer the question, "What is organizational communication?"

Roberts and O'Reilly (1974) began a recent article by proclaiming, "There has been no systematic development of instrumentation to measure communication variables in organizations," and then presented the results of their own efforts in this direction. Although they labeled their work as exploratory instrument development, their approach suffers from severe methodological weaknesses. For example, their early decision to reduce their questionnaire item pool from 189 to 60 items was based upon a single administration of their instrument to 70 graduate students with previous work experience:

This lack of a systematic measurement approach has apparently affected the behavior of practitioners. Greenbaum (1975) reported in his national survey of industrial communication measurement practices that most organizations are simply measuring the effectiveness of their in-house publications.

If we agree with Redding and the others about the dismal state of our theory and its measurement, what, then, have we learned about organizational communication measurement in forty years?

Most of the research has concentrated on the flow of information throughout the organization, the content of the messages which are sent or received, or the attitudes, feelings and perceptions of the communicators about the communication system, its parts and climate.

1. Information flow studies appear grounded in both the classical structural and social systems schools of organizational behavior. Researchers using this approach would ask such questions as:

-What direction (up, down, across, or diagonally) do messages flow in the organization?

-Who initiates and sends these messages?

-Do messages follow prescribed or informal channels as they flow?

-Who are the isolates? liaisons? bridges? group members? gatekeepers? bottlenecks?

-How long does it take to disseminate a message throughout the system? subsystem? How often are certain people sent certain messages?

-How many people are involved in the flow of particular messages?

-Are certain channels overloaded or underloaded with messages?

-For what purpose are certain messages sent? With what effect?

These questions, designed to provide a profile of communicative practices based on perceptions and actual behaviors, are readily answered with the aid of network analysis techniques. Grounded in the laboratory studies of communication networks (Bavelas and Barrett, 1951; Leavitt, 1951; Shaw, 1964; Guetzkow, 1965), these techniques are now possible in large organizations, primarily due to a brilliant computer program written by Richards (1971) capable of analyzing networks as large as 5,000. The data are typically gathered by using logs or self-reporting forms; occasionally the researcher may observe the interactants directly and record the data on a diary instrument.

2. Message studies seem to be derived from the behavioral decision models of organizational behavior. The content of the actual messages is identified and analyzed with such questions as:

-What is the purpose of the message?

-What kinds of distortion have taken place in the sending and receiving of the message? ommissions? additions? changes?

-What is the actual content of the message?

-Is the message accurate? appropriate? timely? believable? important? satisfactory?

-Is the message redundant or excessive?

These studies, designed primarily to assess the serial transmission effect of message flow in an organization (Allport and Postman, 1947; Campbell, 1958;

March and Simon, 1958), often use content analysis, survey, or critical incidents to gather their data. One popular technique which gathers information about both the distortion and flow of messages is ECCO Analysis, developed by Keith Davis (1952).

3. Perceptual/attitudinal studies with roots in the human relations and human resources movement usually assess peoples attitudes, feelings and beliefs about the communication practices and climate in their organization. Respondents typically describe what they think or perceive the communication behaviors in their organization to be, or their feelings about these behaviors. Commonly asked questions are:

-How satisfied are people with their boss as a communication source? their co-workers? their subordinates? top management? the grapevine?

-How important are these communication sources?

-Are these sources trusted? liked?

-Is the communication climate open? can people say what they want?

-Is enough information available from (particular sources, channels)?

-Is enough information available about (selected topics)?

-Is there feedback and follow-up to messages sent?

-How involved are workers in decisions affecting their work?

-How clearly are goals and objectives communicated?

-Do people mutually understand each other and their use of language?

-Are workers supported and rewarded for their efforts?

-Are opportunities present to send information about (selected topics) to (selected sources)?

The most popular techniques used to gather these data are the interview or written survey. Occasionally, respondents may be asked to provide examples by using critical incident forms. Most of the significant work dealing with these studies has been done during the last twenty years at Purdue University, under the direction of W. Charles Redding (1972).

More information about the actual instruments and techniques used over the past forty years may be found in such reviews as Guetzkow (1965), Porter and Roberts (1972), Price (1972), Redding (1972), Roberts and O'Reilly (1973) and Goldhaber (1974). These summaries and reviews of the original studies reveal that most suffer from methodological weaknesses which limit their utility today. Among the major problems are:

1. Single instrument approach - whether interviewing, administering surveys or self-reporting forms, most researchers relied on only one instrument to gather their data. Current knowledge about convergent and discriminant validity would seem to dictate a multiple-measurement approach as a means of gathering more representative data about an organization (Campbell and Fiske, 1959).

2. Situationalism - most studies gathered their data in a single organization, thus limiting the generalizability of their findings to include other types of organizations. Occasionally, researchers might use similar approaches in different organizations, but due to a variety of reasons, mostly speculative, common instruments and standardized procedures were not used, thus, again limiting the generalizability of the findings. (Perhaps there is a communication breakdown among communication researchers; perhaps the literature showing a link between poor horizontal communication and peer group competitiveness applies to researchers also.)

3. Small unrepresentative samples - for a variety of reasons, both practical (e.g., lack of entry) and theoretical (e.g., lack of computer methodology to analyze large amounts of network data), most studies reported very small samples, usually composed of management and professionals. After reviewing most of the significant research done between 1962 and 1972, Porter and Roberts (1972) concluded, "our entire knowledge about how employees behave in terms of communicating in organizational settings is based on a total of fewer than 1,500 individuals!"

4. Lack of standardization and norms - other than the ISR data book (Taylor and Bowers, 1972), with its very limited approach to organizational communication measurement, no published set of norms exists for any communication behaviors and attitudes. Norms can't be developed without first agreeing on a standardized procedure and instrumentation to gather the data, which also has not existed in the past. With norms, organizations can compare themselves with other similar organizations, with organizations whose communication systems are effective or ineffective, with organizations whose overall performance is effective or ineffective. With norms, organizational communication theories can begin to develop some long overdue external validity.

5. Limited measurement of actual behaviors - although the measurement of communication behaviors is harder to accomplish (due to the process nature of communication), limiting our conclusions to how people feel or think communication is occurring, may be too narrow a focus. The communication literature is filled with evidence of the problems encountered by people who perceive things differently and the consequences of behaviors based upon differences in perceptions (See e.g., Likert, 1961; Goldhaber, et.al., 1972).

6. Measurement not done over time - with few exceptions (e.g., Burns, 1954; Kelly, 1964; Sutton and Porter, 1968), most researchers have ignored the notion that communication is a time dependent process (Roberts and O'Reilly, 1973). Interviews or surveys could be taken at repeated intervals, or self-recording forms (diaries, logs) could be used over extended periods of time. This would allow researchers to produce "movies" instead of "snapshots," and more accurately account for the process nature of communication; this approach would also allow for more behavioral measurements to be taken.

7. Questionable predictive validity - few researchers have bothered to collect data about organizational performance, either perceptual or behavioral, thus preventing analysis of the relationship between performance variables and communication variables. Since the question of this relationship remains unanswered, future researchers should regularly collect such data and test the relationship. This would add predictive validity data to the instruments used.

The ICA Communication Audit

Recognizing the problems inherent with previous approaches to the measurement of organizational communication, Division IV (the Organizational Communication division) of the International Communication Association decided in 1971 to begin the development of its own measurement system, called the ICA Communication Audit. Although Odiorne (1954) was the first in the literature to use the phrase "communication audit", the ICA's measurement system was intended to far exceed the purposes of Odiorne's 16-item questionnaire. The long-range goals of the ICA's Communication Audit project are to:

1. establish a normed data bank to enable comparisons to be made between organizations on their communication systems;
2. establish, through these comparative studies, a general external validation of many organizational communication theories and propositions;
3. provide research outlets for faculty, professionals and graduate students;
4. establish the ICA as a visible center for organizational communication measurement.

In order to meet these long-range goals, several immediate objectives became apparent:

1. develop a system of measurement which:
   a. measures information flow, message content and communicator attitudes and perceptions of both;
   b. provides attitudinal, perceptual and behavioral data;
   c. uses a variety of measurement techniques;
   d. allows for measurement of communication over time;
   e. is modular, allowing any combination of instruments to be used in data-gathering;
   f. uses standardized procedures for administration of instruments and collection and analysis of the data;
   g. allows for limited organizational input to customize the instruments and administration procedures without disrupting the standardization needed for organizational comparisons.

2. develop a rigorous pilot-testing procedure which:
   a. includes a variety of organizational types and sizes;
   b. includes both small and large samples;
   c. includes members from all levels of organizations (management, staff, workers, etc.)
   d. allows the instruments and the procedure to be statistically and logistically shaken down and revised;

3. implement the revised audit procedure:
   a. using trained and credentialed ICA auditors with knowledge, experience and competencies in the audit to design and direct all audits;

b. following a detailed management plan grounded in Schein's (1969) principles of process consultation;

c. using originally developed standard computer programs for data analysis and report feedback;

d. allowing the collection of organizational performance data to facilitate organizational comparisons;

e. allowing the development of norms for different communication behaviors, perceptions and attitudes;

f. storing data from all audits in a computerized data bank with access to auditors and audited organizations via originally developed information retreival programs.

g. publicizing the results of our audits to appropriate organizational communication researchers and practitioners.

As we will see in Part Two of this report, most of these goals have been achieved and the only remaining tasks are the continued refinement of our instruments and procedures, as well as the never-ending process of building our data bank.

Summary of Part One

1. The importance of communication to any organization may not be so much its casual link to organizational performance as its process role of connecting an organization's parts to each other and to its environment.

2. Although ample reasons exist for justifying the assessment of communication in organizations (diagnosis, evaluation, control), no systematic development of a valid and reliable measurement procedure has been reported.

3. The wide variety of techniques used in the three main approaches to the study of organizational communication (information flow, message, and perception/attitude studies) have resulted in a series of methodological

weaknesses which limit their utility today.

4. The ICA Communication Audit, therefore, was developed to devise a valid and reliable measurement system whose rigorous pilot-testing, refinement, standardization and application would allow the construction of a normed computerized data bank.

PART TWO: DEVELOPMENT

Over 150 communication professionals and practitioners from six countries have contributed their time and energies over the past five years toward the development of the ICA Communication Audit. Due to the nature of the project, three phases were identified, each with its own specific objectives:

Phase I: Development of Audit Procedure and Instruments

Phase II: Pilot-testing of Audit Procedure and Instruments

Phase III: Implementation of Audit Procedure and Data Bank

Phase I Development of Audit Procedure and Instruments (1971-4)

The objectives of Phase I were to:

1. Develop a conceptual framework for the communication audit;
2. Identify, survey, and evaluate existing literature utilizing potential audit instruments and procedures;
3. Develop a general audit procedure;
4. Develop (or identify) audit instruments consistent with both the conceptual framework and the audit procedure.

Table 1 provides an historical overview of the key events contributing to the accomplishment of these objectives.

Date	Event
April, 1971	Phoenix ICA Convention-Division IV held a workshop and decided to focus its energies on a few select projects, among which was the development of a procedure to audit the communication system of organizations. Brent Peterson (then at the University of Montana) and Howard Greenbaum (Motor Parts Industries) were assigned the task of planning an audit workshop for the 1972 convention.
April, 1972	Atlanta ICA Convention - Division IV held a workshop on "The Construction of a Communication Audit" with 6 methodological and 5 case example papers presented. At its business meeting, members of Division IV agreed to concentrate their energies on the designing of methods for auditing communication behavior in organizational settings

Date	Event
	and the application of these methods to actual organizations in the U.S. and other countries. Interest and willingness to work on such a project was expressed by a majority of the practitioners and academicians present, resulting in the establishment of three working groups to execute the project:
	Group I-To establish the research design(s) and instruments necessary for a communication audit in organizational settings.
	Group II-To select and coordinate research teams who will actually conduct the audit in various organizations.
	Group III-To gather support from actual organizations that would cooperate in such an undertaking.
May, 1972	Eldon Baker (University of Montana), outgoing Chairman of Division IV, surveyed all members of Division IV for their input and availability to work on the audit project.
September, 1972	Mark Knapp (Purdue University), new Chairman of Division IV, initiated the audit project by making personnel appointments (based upon Baker's survey results) to each of the three working groups. Gerald Goldhaber (then at the University of New Mexico) and Gary Richetto (then at General Motors Institute) were appointed to coordinate Group I; Brent Peterson was named coordinator of Group II, and Eldon Baker of Group III.
November, 1972	Goldhaber and Richetto sent a survey to 35 key organizational communication researchers soliciting their opinions on two questions: what communication phenomena SHOULD be audited in the organization, and what communication phenomena CAN be audited in the organization.
December, 1972	49 responses were received from 12 persons indicating that what should be audited can be audited, and identifying 32 possible audit tools, mostly of the survey, interview, or observational variety.
	A synthesis of their responses was prepared by Goldhaber and mailed back to the original 35 researchers for their reactions.
	Chicago SCA Convention-10 of the 35 researchers met to discuss the synthesis, the development of a conceptual framework and next steps. Decisions were reached on the following: ICA would copyright the audit procedure listing the names of its contributors and stating permission for its unlimited use for RESEARCH purposes; the audit procedure would be modular allowing for independent or interdependent use of the several audit instruments developed for the procedure; a conceptual framework evolving from current

Date	Event
	literature would be created, within which the audit procedure would be developed.
January, 1973	Group I was divided into three geographically determined subgroups: North (coordinated by Vince Farace of Michigan State); Midwest (coordinated by Harry Dennis, then of Purdue University); and West (coordinated by Lon Faules of the University of Utah); each subgroup was assigned the tasks of developing the conceptual framework and identifying possible audit instruments and tools.
April, 1973	Montreal ICA Convention-an audit workshop was held with 50 persons in attendance, 25 of whom remained for the entire 14 hours. Primary decisions made at the workshop were: a conceptual framework, (provided by Dennis and Faules) identifying key dimensions studied in previous communication audit research, was adopted (See Appendix 1); a general procedure, adapted from Schein's (1969) process consultation model, was identified; agreement was reached that the audit would use standardized instruments, procedures and norms, would measure both attitudes and perceptions, as well as behaviors, would allow for organizational input and longitudinal comparisons, and would generally use populations on smaller (less than 1,000) organizations and 15% samples on larger organizations; finally, Goldhaber and Richetto were named overall audit coordinators.
October, 1973	Due to its size (now 125 members), Group I was reorganized into four geographic regions, each with two coordinators: East (Ray Falcione, University of Maryland and Howard Greenbaum); Mideast (Harry Dennis and Vince Farace); Midwest (Don Schwartz, N. Dakota State University and Cal Downs, University of Kansas); West (Don Faules and Belle Ruth Witkin, Alameda, CA County Schools). Members of each region were assigned the task of identifying, reviewing and evaluating available literature on previous audit attempts. A data analysis team (Jim Derry, Purdue University; Bill Richards, Stanford University; Jim Cypher, IBM) was appointed to begin conceptualizing the details of a data bank and information retrieval system.
November, 1973	New York SCA Convention and Albuquerque WSCA Convention-meetings held of available regional and national coordinators to finalize details on literature searches. The following data sources were to be investigated in the searches: manual search of journals, books, etc. found in major university libraries; computer search of ERIC, DOD, Business Abstracts, Psychology Abstracts, and the N.Y. Times; dissertation abstracts; corporate and governmental unpublished documents and instruments (via mailings). An additional 38 members were recruited to the task group, now totaling 163.

Date	Event
December, 1973	Credentials committee established (Jerry Mandel, California State College-Dominguez Hills; Ellis Hays, California State University-Long Beach) to identify criteria needed to become an ICA Communication Auditor.
	Preliminary literature search results (identifying 150 audit instruments) disseminated to members of 4 regions for assignment and evaluations; each member was to locate, read and evaluate (in writing) a particular set of audit instruments, according to the conceptual framework and general audit procedure.
March, 1974	Funding proposal (developed by Sandra O'Connell, then of Equitable Life Assurance Society) submitted to Executive Study Conference (rejected).
April, 1974	New Orleans ICA Convention-audit workshop was held and attended by 50 persons who reviewed literature searches, approved a credentialing procedure, discussed potential pilot audit sites (identified by Eldon Baker, coordinator of Group III), and prepared an outline of a specific audit procedure and instruments. Based upon the information from the reviews, a decision was made to use the following five approaches in the ICA Audit system: questionnaire survey; interview; critical incident; diary log; and network analysis. It was believed that these five approaches would allow for attitudinal, perceptual and behavioral measures, would be consistent with the thrust of most organizational communication research (studies of climate, networks and messages), and would follow the general conceptual framework previously accepted for the audit. Workshop members were assigned to one of the five teams (1 team for each measurement approach) to help prepare the draft outlines of the instruments.
May, 1974	Draft 1 of the audit procedure and instruments was completed by the team coordinators and circulated to audit regional coordinators for reactions.
June, 1974	Draft 2 of the audit package (a 45 page document revised according to feedback received from regional coordinators) was circulated to all 163 audit team members for their reactions. Included in Draft 2 was: a cover letter to client organizations (describing the audit instruments and procedure, and its payoffs to clients); a questionnaire survey; a preliminary interview methodology; a critical incidents format; and a diary format.
September, 1974	Based upon feedback on Draft 2, Draft 3, a 47 page document, was circulated to all 163 audit team members. Draft 3 was now ready for pilot tests in organizational settings.
	Due to the completion of Phase I (Development of audit procedure and instruments), the audit project required reorganizing toward a functional structure. (Appendix 2 contains this new structure.)

And so, after 3 1/2 years, 163 researchers and practitioners from six countries, drawing upon data from four convention workshops (totaling over 40 hours), three additional convention meetings, five mail surveys, four massive literature searches, and after undergoing four reorganization efforts, managed to produce the following products:

1. a conceptual framework for the audit
2. an annotated bibliography on communication audits
3. a general procedure for conducting an audit
4. drafts of five audit instruments
5. a general procedure for credentialing auditors.

We were now ready to begin Phase II, the pilot-testing of the audit package in several organizational settings.

Phase II Pilot-testing of Audit Procedure and Instruments

The objectives of Phase II were to:

1. Conduct pilot-tests of the audit procedure and instruments in a variety of organizational settings;
2. Develop computer programs to analyze the data from the pilot-tests;
3. Revise the audit instruments and procedure based upon the data from the pilot-tests;
4. Develop a plan to disseminate both the audit results and development plans to appropriate journals, newsletters and professional associations.

Table 2 provides an historical overview of the key events contributing to the accomplishment of these objectives.

Date	Event
October, 1974	ICA Board of Directors endorsed audit project.
	Professional association newsletter stories describe the audit and solicit organizations for pilot audits. (Ragan Newsletter, ICC Newsletter and meeting, etc.)

Date	Event
	Industrial Communication Council (ICC) receives proposal to provide funds to assist the pilot-testing phase.
	Pilot test 1 (in an Arizona utility company) begins under the direction of Norm Perrill, Jerry Buley and Rick Wood (all of Arizona State University).
February, 1975	ICC grants $1,000 to Division IV to help in the pilot-tests of the audit.
March, 1975	Pilot test 2 (in a Canadian hospital) begins under the direction of Gerald Goldhaber.
April, 1975	Chicago ICA Convention-approximately 50 persons attend audit workshop to hear results of first two pilot-tests, discuss future pilots and publication plans. ICA Board grants $1,300 to Division IV to help in the pilot-tests of the audit.
May, 1975	Pilot test 3 (in a Florida school system) begins under the direction of Gerald Goldhaber, Harry Dennis (now of the Executive Committee), Gary Richetto (now of the Williams Companies), Tom Porter (SUNY-Buffalo), and Robert Kibler (Florida State University).
June, 1975	Buffalo meeting (Goldhaber, Dennis, Richetto, Porter, Richards of Stanford) to discuss pilots and data bank. Pilot test 4 (in a U.S. Senator's office) begins under the direction of Gerald Goldhaber, Ray Falcione, Wayne Pace and Paul Feingold (University of New Mexico).
August, 1975	Pilot test 5 (in a Pennsylvania manufacturing company) begins under the direction of Gerald Goldhaber.
October, 1975	ICA Board approved audit management structure and credentialing procedure.
	Goldhaber released audit results of first five pilots in Mexican conference (Goldhaber, 1975, 1976).
November, 1975	Pilot test 6 (in a New Mexico public defender's office) begins under the direction of Paul Feingold.
December, 1975	Buffalo meeting (Goldhaber, Dennis, Richetto, Porter; Yates and Lesniak of SUNY-Buffalo) to: review data from first 6 pilots; revise instruments and audit procedure; finalize management plan, feedback format, and audit synthesis; finalize audit organizational structure, personnel appointments and credentialing process. (Appendix 3 contains the audit synthesis, Appendix 4 the management plan, Appendix 5 the feedback format, Appendix 6 the organizational structure and audit flow chart, and Appendix 7 the credentialing process).

Date	Event
January, 1976	Draft 4 of the audit instruments and procedure was finalized in a conference call (Goldhaber, Richetto, Dennis).
	Draft 4, a 60 page document, was sent to 50 key auditors, for use in future pilot tests.
February, 1976	Pilot test 7 (in a personnel department of a university) and pilot test 8 (in a university relations office) begin under the direction of Gerald Goldhaber.
	Pilot test 9 (in a U.S. Government Agency) and pilot test 10 (in an academic department of a Washington, D.C. university) begin under the direction of Ray Falcione).
April, 1976	Portland ICA Convention-workshop conducted to teach audit history, procedure and instruments to ICA members interested in becoming credentialed auditors (see Appendix 8 for an outline of the workshop); results of first 10 pilots are released; marketing and dissemination plan discussed and finalized; ICA Board discussed approval of publication of audit book.
May, 1976	Washington, D.C. Organizational Development/Transactional Analysis meeting- audit workshop conducted by Goldhaber/ Falcione for OD personnel interested in becoming credentialed auditors.
June, 1976	Goldhaber presents audit pilot results and conducts workshop in Kobe, Japan at the Pacific Communication Association.
	ICC Board discussed approval of joint ICC-ICA audit book.
July, 1976	Buffalo meeting (Goldhaber, Dennis, Richetto, Porter, Yates, Lesniak) to revise audit instruments and procedure, based upon data from pilots 7-10; implementation of the data bank discussed.
	Toronto meeting of the Forest Products Research Society- Goldhaber, Richetto, Dennis conduct audit workshop.
	Goldhaber presents audit pilot results and conducts workshop in Manilla for Phillipine/American Communication Conference.
August, 1976	Draft 5 of audit instruments and procedure mailed to 50 key auditors, ending pilot testing program of ICA audit project.
	Results of audit project presented to Academy of Management meeting in Kansas City (Goldhaber, Dennis, Richetto, Falcione, Jain).

As can be seen from Table 2, 10 pilot tests were conducted on Drafts 3 and 4 of the audit. I will now provide some more information about these tests, their results and the revisions made in both the instruments and procedure.

Pilot Tests

1. Arizona utility company - the utility company employs 4,000 persons throughout Arizona and New Mexico. Only the survey questionnaire was used in the test, randomly sampling 360 employees from all levels of the organization. Norm Perrill, Jerry Buley and Rick Wood (see Wood, 1975) of Arizona State University directed 14 face-to-face group administrations of the questionnaire, using about 45 minutes/person for completion. The audit was conducted between October and November, 1974, the data were manually coded and keypunched and analyzed using standard SPSS survey programs, with feedback given to the client organization in January, 1975.
2. Canadian hospital - the hospital, located in Ontario, employs 1,700 persons, has 600 patient beds, and is divided into five major sectors (nursing, administration, medical, paramedical services, and administrative services). The hospital is essentially a bilingual operation with French and English being spoken by most employees. A total of 36 auditors and support staff were involved in various stages of this audit, with the bulk of the work done by Gerald Goldhaber (see Goldhaber, 1975), Hilary Horan, Tom Porter, Don Rogers and Michael Ryan (of the Canadian Government). Originally planned as a test for all five audit instruments, the following were done: 977 employees completed the survey questionnaire; a random sample of 140 were interviewed and completed the critical incident questionnaires (generating 197 critical incidents); 150 persons from three pre-selected departments were to have completed the network analysis questionnaire, but due to low returns (36%), these data were discarded; these same people were to have completed diary logs (at a later date), but due to low cooperation and

participation, these data were not obtained. The questionnaire data were collected in March and the interview/critical incident data in April, 1975. The former were machine coded and analyzed on standard SPSS survey programs, providing overall hospital results and results by two cross-breaks (hospital sector and motor tongue spoken). The interviews were numerically tabulated with key comments extracted and summarized in a report keyed to the questionnaire survey. The critical incidents were manually coded according to categories originally developed from these data and summarized, by sector, and reported as supplementary to the survey data. Preliminary reports were given to the hospital in April and a final report, with recommendations, was presented in June.

3. Florida school system - the county school system has 18 elementary schools, 6 middle schools, 4 high schools, 1 training center and 1 vocational technical school, and employs 2,700 persons, including 200 county level administrators and support personnel. A total of 31 auditors and support staff were involved in various stages of the audit, with the bulk of the work done by Gerlad Goldhaber (see Goldhaber, 1975), Harry Dennis, Gary Richetto, Tom Porter and Robert Kibler. A sample of three randomly selected schools (elementary school, n=47; middle school, n=62; high school,n=312) and 167 county administrators and support personnel were included in this audit. Four instruments were used with the following numbers of persons completing each instrument: questionnaire survey (n=266); critical incident questionnaire (n=266, generating 848 incidents); interview guide (n=12); network analysis (n=312). All instruments were administered in May, 1975; the critical incidents were manually coded according to originally developed categories (in June); the survey was processed (also in June) using an originally developed computer program, written by Tom Porter, which rank orders questionnaire items according to

their level of satisfaction and importance; the network analysis data was processed using an original computer program written by Bill Richards (lent to the ICA for use in the audit project); the interviews were transcribed (by the interviewers) and analyzed and summarized by Harry Dennis who provided conclusions and summaries for each of the ten questions asked on the guide. The data were analyzed for the entire system, as well as for each school and the county offices. Preliminary reports of the results were presented by Porter and Goldhaber in July, with final results and recommendations presented by Goldhaber in August.

4. U.S. Senator's office- the Senator's office has 40 persons, 11 working in the four home-state field offices and 29 working in Washington, D.C. Office assignments generally fall into four basic categories: administrative; legislative; press; and field operations. Field offices are primarily responsible for constituent liaison and handling casework and special projects. The Washington, D.C. office handles some casework, but is mostly responsible for the full range of staff work required to enable the Senator to effectively contribute to the legislative process. A total of 14 auditors and support staff were involved in various stages of the audit, with the bulk of the work done by Gerald Goldhaber (see Goldhaber, 1975), Ray Falcione, Wayne Pace, Hilary Horan, and Paul Feingold. Five instruments were used in the audit: a survey questionnaire (completed by 33 persons); preliminary interviews (of 17 persons); and follow-up interviews (of 17 persons); critical communication incidents (126 collected from 34 persons); communication network analysis (completed by 40 persons); and a communication diary of all individual interactions (completed by 40 persons), plus a log of all incoming and outgoing mail during a week. Survey, critical incident and preliminary interview data were collected during June, 1975; network analysis, follow-up interview, and diary data were

collected during July, 1975. Survey and network analysis data were analyzed with the Porter and Richards programs, respectively; original categories were developed and critical incidents were coded and summarized according to them; preliminary interviews were summarized and analyzed as before, with an original guide devised (by Pace and Feingold) based upon the results of the survey and exploratory interviews--follow-up interviews were then analyzed according to previously developed procedures; the diary was manually coded and keypunched and analyzed with an original computer program, developed by Tom Porter, which summarizes frequencies of communication behaviors. The final report and recommendations were presented to the Senator and the Joint Congressional Operations Committee in Oct. 1975.

5. Pennsylvania manufacturing company- two Pennsylvania plants responsible for parts production for a large national manufacturing corporation were the sites of the audit. Although the combined population of both plants exceeds 1,000, the sample for the audit was limited to 124 members of the company's management club. The audit was conducted by Gerald Goldhaber (see Goldhaber, 1975) and limited to the use of the survey questionnaire, completed in two face-to-face administrations in August, 1975. The data were analyzed by complete sample as well as by organizational sector and salary status (exempt or non-exempt). The Porter survey program was used and feedback given to the company, with recommendations, in November, 1975.

6. New Mexico Public Defender's office*- a census of 25 attorneys and support staff in two offices were administered the survey by Paul Feingold (see Feingold, 1976) in November, 1975. Data were analyzed using the Porter survey program and the organization was given its report in January, 1976.

*This was the last test with Draft 3.

7. University Personnel Department** - a census of 33 employees (24 staff and 9 managers) from a personnel department in a large Northeastern state university completed the survey, critical incidents and network analysis questionnaires in February, 1976; additionally, ten persons were interviewed in February and another 10 in April, with the entire department keeping a diary in April. The audit was conducted by Gerald Goldhaber (see Goldhaber, 1976), using Tom Porter's new computer package for analyzing both survey and critical incident data and previously discussed techniques for the other instruments. Feedback was given to the organization in June, 1976.
8. University Relations Division - a census of 68 employees from four departments (alumni relations, information services, publications, central office) in the Division of University Relations in a large Northeastern university completed the survey, critical incident and network analysis questionnaires in February, 1976; additionally, 8 persons were interviewed in February and another 15 in April. The audit was conducted by Gerald Goldhaber (see Goldhaber, 1976) and Michael Yates using similar analysis procedures to those used in the above personnel department audit. The organization was given its report in June, 1976.
9. U.S. Government Agency - 100 employees from a Washington, D.C.-based federal agency completed the survey and critical incident questionnaires in February, 1976, administered by Ray Falcione (see Falcione, 1976);additionally, 20 employees were interviewed in February and another 20 in April. Data were analyzed, as above, with the Porter audit package, and the organization was given its report in June, 1976.
10. Academic Department - a census of 50 faculty, staff and graduate assistants from an academic department in a Washington, D.C. university were administered

**This was the first test of Draft 4.

the survey and critical incident questionnaires in February, 1976 by Ray Falcione (see Falcione, 1976); ten persons were interviewed both in February and in April. The data were analyzed with the Porter audit package, and the department was given its report in June, 1976.

Thus, in ten pilot tests of Drafts 3 and 4, the following was accomplished:

1. survey questionnaire-2,036 persons completed it in 10 audits
2. interviews-289 persons were interviewed in 7 audits (72 in follow-ups)
3. critical incidents-691 persons from 7 audits generated 1,608 incidents
4. network analysis-510 persons from 5 audits participated
5. diary-73 persons in 2 audits kept a log.

Results of Pilot Tests*

Some of the more commonly reported conclusions about communication in organizations resulting from the first six pilot tests were:

1. Most employees seem to like their immediate work environment and the people with whom they work closest---their work groups and immediate supervisors, but arent't that satisfied with their organization at large, its reward system, and their contributions to the organization as a whole.
2. Most employees are receiving the information they need to do their daily jobs, but are not receiving all the information they want, particularly related to organization-wide concerns, problems, goals, decisions and mistakes; the exception is the manufacturing company where downward communication was very effective on almost all subjects.
3. Opportunities exist for employees to voice their opinions upward, particularly about work activity and staff progress, but the existence of adequate and appropriate follow-up is definitely lacking at the top of most organizations; especially missing is the opportunity for

*At the time of this writing, the data from the last 4 pilots were not analyzed sufficiently to become part of these conclusions.

adequate upward flow related to evaluating supervisors' performance.

4. Horizontal communication, particularly information sharing between work groups, is weak or non-existent, creating some problems of mistrust and unnecessary conflict and/or competition.
5. Face-to-face and written channels of communication appear to operate more effectively than such hardware as bulletin boards, videotape presentations, telephone, computer printouts.
6. Employees are least satisfied with information sources most removed from their immediate work environment (top management, their boss' superiors) and most satisfied with sources closest to their daily work performance (their boss, co-workers).
7. Of the four traits related to the quality of information (clarity, appropriateness, timeliness, believability), only timeliness---getting messages on time---appears to be a problem, particularly related to messages originating from top management.
8. The overall communication climate was more negative than positive for most of the organizations.
9. The most important communication problems experienced by employees related to the inadequacy or absence of information needed and/or wanted to do a good job, the misuse of authority or incorrectly following procedures to do a job, and ineffective interpersonal relationships due to personality clashes or poor cooperation.
10. In the larger organizations (over 500 employees) many employees are relatively isolated from both the necessary and incidental information flow.

Naturally, these findings are highly tentative and subject to change as the audit instruments and procedure becomes more stable, but they do represent a first effort to generate a set of conclusions about organizational communication

drawn across several organizations, using a standard set of measuring instruments.

Audit Revisions

As a direct result of the pilot-testing program, major changes were made in both the audit process and the instruments. The first set of changes were made after pilots 1-6 were completed and related to the instruments, their analysis, and the audit process itself.*

1. Instruments

a. Survey Questionnaire-Draft 3 of the survey contained 184 items, plus 9 demographics. Draft 4 contained 116 items, plus 10 demographics, a reduction of about 37%. Criteria used to decide which survey items should be retained and deleted from Draft 4 were: reliability (compared with other items in its section and its value toward the entire instrument); inter-item correlation (number of other items within a section which correlated with it, measuring its internal consistency); face validity (clarity, appropriateness, relevance, as determined by content experts, and importance of item, as determined by organizational members); correlation with outcomes (as a measure of predictive validity, how well did the item correlate, across audits, with key organizational outcomes); factor analysis data (did an item cluster with other items, appearing to measure a single factor). All criteria were used collectively to make decisions for each item; factor analysis data were only useful for the "relationships" section of the questionnaire (where 3 clear factors were identified, accounting for about 1/2 of the variance). The major revision in the survey was to change from a "satisfaction/importance" measurement paradigm to an "information adequacy" paradigm. In Draft 3, about 1/2 of the items measured both the satisfaction felt and importance of information received on various topics, from various sources and through various channels. For example, a

*at the time of this writing, the second set of revisions had not been completed; July, 1976 was the date for doing this, based upon the results of pilots 7-10.

question may have asked,

"How satisfied are you with information received from your boss?" (very dissatisfied, dissatisfied, neither satisfied nor dissatisfied, fairly satisfied, very satisfied) AND "How important to you is receiving information from your boss?" (not at all important, somewhat important, fairly important, very important, extremely important). This type of question combines attitudinal and perceptual responses, as well as providing inferential evidence about organizational needs, i.e., a person very dissatisfied (on the above question) who perceives the information as "extremely important" represents a greater organizational need for change than a person of similar feelings, but who perceives the situation as only "somewhat important".

In Draft 4, this paradigm was changed to a more direct measure of organizational needs, one which dealt only with perceptual data--an information adequacy paradigm. For example, the above question would be framed,

"How much information do you NOW receive from your boss?" (very little, little, some, great, very great) AND "How much information do you WANT to receive from your boss?" (very little, little, some, great, very great). If there is little difference between the amount of information currently received and that desired, we may conclude that the situation is adequate. If, however, a person receives "very little" information and desires a "very great" amount, we have an information underload situation, requiring more information. If, on the other hand, a person receives a "great" amount of information, and desires "very little", we have an information overload situation, requiring less information.

In addition to shortening the survey and changing the measurement paradigm, the demographics were switched from the front of the questionnaire to the rear (to reduce immediate threat), additional demographics were added, measures of

perceived organizational effectiveness were added, sections assessing information follow-up and the grapevine's flow were added, and major editorial changes were made to reduce the ambiguity of language. Finally, 18 items, although deleted from Draft 3, were placed in a "cafeteria" so that an organization desiring to customize its survey may add any of these items to the end of Draft 4.

b. Interview-Draft 3 originally used a standard interview schedule calling for the interviewer (R) to show sections of the questionnaire to the interviewee (E) and probe for the E's understanding of and desire to talk more about particular questions; additionally, the R would ask the E specific content questions (from a non-standard guide) designed to elicit more information about an item. This process was followed in the hospital audit on 140 persons (about 10% of the available population randomly selected across sectors). For example, the R might say to the E,

"Let's look at the first section of the questionnaire which deals with the kinds of information you receive in the hospital. It covers questions 10-64. Please look over the items. (Pause) Did you have any difficulty understanding any of the questions? Which ones and why?"

The R also asked,

"Are there any questions included in this section that you would like to answer more extensively? Which ones?"

If, for example, the E wanted to talk more about information received about pay, the E might probe with,

"Do you understand your pay system and fringe benefits? How do you get information about your pay?"

For each survey item, a series of probes were made available to the R.

The major problem encountered with this interviewing approach was coding and summarizing the sporadic, yet massive amounts of data generated. The technique provided much data of use in changing the survey instrument, but little manageable data for interpreting the survey findings. Thus, we decided to use a short standard set of 10 exploratory interview questions at the beginning of all future audits. These questions would be asked of organizational leaders and decision-makers (formal and informal) identified at the outset of the audit. They were designed to provide general kinds of information about the communication system (e.g., "What are the major communication strengths of this organization?"), the roles people played in it (e.g., "Describe your role in this organization."), and the relationships encountered in their interactions (e.g., "What are the major sources of conflict in this organization?").

The data are analyzed in the following way: R's, within 24 hours of an interview, type the transcript of their interview; all transcripts are given to one person who records all answers to a particular question on a master coding sheet, summarizes the answers (providing key quotes), and draws the major conclusion(s) for the question; the report is then organized by listing the conclusions first, then all summaries (by question), and finally, an appendix containing the edited (deleting personal references) answers to all the questions.

This technique worked rather smoothly in the Florida school audit, and was repeated in the Senate, with the addition of a second round of interviews. Questions asked in the new round are originally designed for the audit and derived from other audit data (survey, network, critical incident, interview). E's are selected with information provided primarily from the network and survey data. This new process was used successfully in pilots 7-10, with a slightly shorter and more specific exploratory guide being generated (8 questions instead of 10).

c. Critical Incidents- In following Draft 3, we decided to first attempt to collect the incidents in a face-to-face situation. In the Canadian hospital, we administered the tool during the interviews (at the end of the session); we believed the interview itself would help trigger thoughts about critical communication episodes. An early audit decision was not to use existing communication categories when coding the incidents, but rather inductively develop original categories, based upon the hospital data. This process was followed during the next two uses of the critical incident (at the Florida school system and in the Senator's office). Eleven categories were generated in the hospital audit, eight in the school system audit, and six in the Senator's audit. The three category systems were then combined into eight major and thirty-four sub-categories which were used in pilots 7-10. Now that a category system was imposed on the critical incidents (rather than developed from them), the coding task was greatly simplified. The new procedure used in pilots 7-10 was to have respondents check off 5-6 categories which they felt were critical to their job and then to generate one incident for each checked category. In effect, the respondents, not the auditors, were now doing the coding. Of course, this technique is only as valid and inclusive as the category system, and future audits will help make these determinations.

d. Network Analysis- the questionnaire to be used in network analysis basically requests respondents to indicate with whom and with what frequency they typically speak about work and non-work topics. With small organizations (under 500) it is easier to print all names on the questionnaire and request respondents to simply check off the names of people they speak with (or spoke with last week, or intend to speak with next week, etc.), and the frequency of interactions for the particular type(s) of messages recorded (work-related, non-work-related, gossip, etc.). The exact form of the questionnaire is usually designed originally for the organization. In the Canadian hospital, we could not print

the names of the 1,700 employees, so we asked respondents to print the names of those they expected to speak with in the coming week. We asked them to indicate the number of medical and non-medical interactions they expected, as well as the particular channel they expected to use (face-to-face, telephone, written). We did not receive sufficient response to analyze the data (you need about 90% or better so that you can accurately identify networks and groups, etc.). Many respondents told us the form was too complicated.

Thus, we changed it for the school audit. We printed names directly on the questionnaire (listing only the names of workers in a particular unit--school, department, etc. on a particular questionnaire). Thus, members of the elementary school received a questionnaire with only the names of people in their school printed on their form. Blank spaces were provided for other names to be written in. Again, we used two message categories (related to doing my job and not directly related to doing my job) and three channels. Coding was more simplified due to the printing of the names, but insufficient response limited a portion of the analysis.

In the Senate audit, we again printed all names on the instrument, but this time specified three networks unique to the Senator's office (legislative, constituent and incidental matters) and added external links (outside his office). This latter decision required much additional coding, since we couldn't predict which or how many names would be generated.

All network analysis data was processed using Richards', (1971, 1972, 1975), original program which identifies work group networks, liaisons, isolates and group bridges.

Draft 4 of this instrument recommends printing all names in advance (to minimize coding), standardizing the message categories (job-related matters, non-job related incidental matters, and organizational rumors), and using two measures of linkage strength (the number of interactions with a person AND a

subjective rating as to the importance of these interactions--1="not at all important" to 5="extremely important"). Draft 4 was used successfully in pilot tests 7 and 8.

e. Communication Diary- Originally scheduled for use in the Canadian hospital, the intended loggers refused to keep a diary, primarily because of the uniqueness of the hospital environment. Thus, the first test of the instrument occurred in the Senate audit, with 40 loggers generating about 1,200 interactions/day (for 5 days). Behavioral traits logged included: name of other party(ies); initiator; channel; kind of message; length of message; descriptive features--utility, importance, confidentiality, etc.; and reasons for failures, if any. Loggers reported spending about 10 seconds recording each interaction. The time-consuming feature of the instrument was coding and keypunching the data, readying it for computer processing. Porter has written an original program to greatly facilitate the feedback of the diary data, but preparation of the data has remained a problem. Draft 4, used in the Personnel Department audit, was slightly altered to make keypunching an easier task; additionally, the kinds of messages were adapted to those used in the network analysis, and the descriptive traits about the interactions adapted from the survey (timeliness, accuracy, utility, etc.). While the log can be used for external linkages, this will greatly increase the coding problem. One recommended use of the log (in larger organizations where printing all persons' names on the instrument is impossible) is to generate the names of loggers from the network analysis, thus having key communicators keep a diary, rather than the entire organization.

2. Data Analysis

The first pilot test of the survey required manual coding and keypunching. All subsequent audits used machine readable answer sheets. The Canadian hospital survey data were processed using a standard SPSS survey program. Since this program required much manual work in preparing the results for feedback to the

client (e.g., combining response frequencies, ranking items, etc.), Porter wrote an original program which automatically combined appropriate responses and rank ordered items for clear feedback. Audits 2-6 used this program. The program rank orders all questions from a section of the survey according to the percentage (combining the two positive or negative extremes, choice 1 and 2 or choice 4 and 5) of respondents selecting the choices. The actual output reprints the item, its number, the number of respondents, the item mean and the percentage of respondents selecting the positive or negative choices from the questionnaire. A dotted line is drawn below the last item indicating items above the norm. Since the questionnaire was modified in Draft 4, a new computer program was written by Porter (1976, called CAAS--Communication Audit Analysis System) to account for the changes.

Basically, tables are produced ranking items according to their information adequacy. Tables ranking items for overload, underload and adequacy appear, with norms automatically printed next to the item results.

The interview analysis has been explained above. The critical incidents were manually coded and analyzed during audits 2, 3, and 4. By using the revised instrument, with its pre-coded category system, and CAAS, with its automatic analysis, the only remaining task is manually keypunching the verbal data. CAAS automatically reproduces tables numerically and verbally summarizing the critical incidents. Percentages of incidents by category are reproduced along with a listing of the actual incidents.

The diary, as stated above, requires manual coding and keypunching, but CAAS provides tables summarizing the frequencies for the interaction behaviors (both individually and for the entire organization). Additionally, CAAS provides all possible cross-breaks for the 10 behavioral descriptors.

The network analysis data require minimal coding (if the names are printed directly on the questionnaire, and assigned a number in advance of administration) but extensive keypunching. The data are analyzed with an original program written by Richards (called NEGOPY) which can handle up to 5,000 persons.

It is safe to conclude that, at this writing, with CAAS and NEGOPY, the ICA Communication Audit is now using the most advanced computer package available for conducting an organizational analysis.

3. Audit Process

In addition to changes in the instruments and the data analysis, we also made changes in the process of conducting an audit. At the outset of the project, we had only subjective opinion as to appropriate sequencing and combining of instrument administration. In the hospital we administered the survey and network analysis during the first visit, conducted the interviews and collected critical incidents (simultaneously) and gave management a preliminary report during the second trip, and gave the final report with recommendations during a third trip.

With the changes in interviewing methodology, we began the school system audit with the exploratory interviews, then administered the survey, critical incidents and network analysis to large groups assembled for 2-hour periods of time. A second trip was used to present the preliminary report and begin generating recommendations. The final report and recommendations were presented during the third trip.

The Senate audit followed the school format, with the addition of a follow-up interview guide and communication diary administered during the second trip. Additionally, the final report was mailed to the Senator, instead of delivered orally.

Audits 1, 5, and 6 only used the survey, requiring one trip for administration and one for feedback.

As seen in the audit management plan (Appendix 4), the process we now recommend following is similar to that used in the Senator's office with the following changes: the preliminary report has been eliminated; the final report is delivered in person; the diary is typically reserved for a few key communicators, identified in the network analysis; critical incidents can be collected either during the survey administration (in writing) or during the second round of interviews (face-to-face), or both.

Thus, after almost 2 additional years (more than 5 1/2 years after the project began), after 10 pilot tests involving more than 2,000 workers, after 6 workshops and 7 professional meetings, after 2 grants, 3 management meetings and 1 2-hour (Buffalo-Milwaukee-Tulsa) conference call, Phase II of the Communication Audit project drew to a close, yielding the following products:

1. two additional drafts of the audit process and instruments (Draft 3 and Draft 4)
2. a detailed management plan outlining the steps for conducting an audit
3. a synthesis of the audit process and instruments
4. summary reports of the 10 pilot-test audits
5. an original set of computer programs (CAAS and NEGOPY) to analyze most of the audit package*
6. a plan for giving the organization feedback on the audit
7. a specific procedure for credentialing auditors
8. a format for conducting audit workshops

*NEGOPY was written by Richards prior to the ICA Communication Audit project, but has allowed the ICA to use it during the network analysis portion of the audit.

9. a revised organizational structure for managing the audit project

10. a plan for disseminating results of and information about the audit.

We were now ready to begin Phase III, the implementing of the audit process and the building of the data bank.

Phase III Implementation of Audit Procedure and Data Bank

The objectives of Phase III are to:

1. Implement the audit procedure in a wide variety of organizations, thus building the data bank;
2. Develop norms to allow inter-organizational comparisons on their communication systems;
3. Use data from the data bank to build and test organizational communication theories;
4. Disseminate results of audit projects and audit development;
5. Train researchers and practitioners interested in becoming credentialed ICA Communication Auditors.

Unlike Phases I and II, with their fixed objectives and discrete outcomes, Phase III is a continuous process, typical of most successful ongoing organizations. As with any open system, the Communication Audit project interacts with its environment by receiving inputs (organizations to be audited, personnel to be trained, etc.), transforming them (conducting audits) into useful outputs (normed data, tested theories, completed audit reports, etc.). As with any system, its survival depends upon its ability to replenish its necessary inputs.

To that end, we are informing (via newsletters, professional papers and journal artic es) appropriate organizations about the availability of the ICA Audit. We have planned workshops about the audit at several professional meetings during the coming years. We are preparing a book about the audit's development and implementation. As we train and prepare more qualified auditors,

we will increase our resources with which to conduct still more audits. The ultimate result is an increasingly valuable data bank, allowing organizations to compare themselves (with similar types of organizations) on relevant communication attitudes, perceptions and behaviors. To date, we have accredited auditors in 15 states, Canada and Finland. Additional auditors are being trained now in other states, Mexico, England, Japan and the Phillipines.

We realize that as we move into Phase III, we are still at the beginning. We have done much, but there is ever so much more to do. Organizations as communication systems are in a state of crisis mainly due to archaic structures and faulty communication. If we are to move beyond our current research status, if we are to improve the daily flow of information in organizations, if we are to build our data bank of valid and reliable findings, then we must embark upon an international cooperative research endeavor, heretofore unseen among communication professionals. Researchers must sacrifice individual designs and personal glories so that a commonly employed methodology, resulting in externally valid findings, will allow our theories of organizational communication to be built upon a foundation of hard data. This, I submit to you, is our challenge for the coming three decades of tomorrow.

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APPENDIX 1

CONCEPTUAL FRAMEWORK FOR ICA COMMUNICATION AUDIT

PART I SUMMARY OF CONCEPTUAL FRAMEWORK FOR AUDIT PROCEDURE
(A Guide to Description and Evaluation)

Part One: THE EXISTING COMMUNICATION SYSTEM

I. Description

A. Is there an established policy statement concerning a communication program?

1. What value is placed on communication?
2. What functions are attributed to communication?
3. What are the premises underlying the communication program?
4. Is there a Director of Communication?
5. Is there an on-going communication program?
6. How "open" is the communication system?

B. What structural factors affect the system?

1. Organizational design?
2. Interdependence of organizational units?
3. Are channels clearly defined?
4. Are roles clearly defined?
5. Are both goals and sub-gorals defined?
6. Are expectations clear at each level?
7. Is the flow of information clearly defined and easily followed?
8. Are expectations of vertical and horizontal communication clearly defined?
9. Does the structure allow for informal networks?

C. Are components for implementation of the system adequate?

1. What forms and means of communication are available?
2. What evaluating mechanisms exist?
3. What facilitating mechanisms exist?

II. Appraisal

A. How much of an organization's resources are allocated for communication?

1. How much manpower and media?
2. Training programs?

B. Does the program reflect human values?

1. Are managers and subordinates aware of shared values?
2. Do managers and subordinates understand the mission of the total enterprise?
3. Do employees feel involvement in the organizational goals?

C. Do employees understand the relationship of their work to the overall goals of the organization?

D. Do employees have a clear understanding of existing communication channels?

E. Do employees have a clear understanding of their roles and the roles of others?

1. Do managers and subordinates agree on expectations?

F. Do employees feel that they get timely and adequate information to carry out their tasks?

G. Do employees feel that the organizational structure facilitates communication?

H. How do the employees respond to various media and forms of communication?

I. Does the organization evaluate and adjust its communication program?

J. Does management recognize the multiple functions of communication and evaluate accordingly?

Part Two: COMMUNICATION BETWEEN INDIVIDUAL AND ORGANIZATION

I. Description

A. Is the communication related to both organizational and individual goals?

B. Do mechanisms exist for upward communication?

C. Do mechanisms exist for grievances?

D. What kinds of information are transmitted to subordinates and to superiors?

E. Are channels of communication identified as open?

F. What mechanisms exist for interaction at all levels?

G. Do employees have a voice in their own destiny and in the way work is carried out?

H. What is the nature of performance-appraisal procedures?

I. What role do the employees play in decision-making?

J. How many levels of management exist?

K. What are the assumptions behind communication directed to employees?

L. Is the employee looked upon as a human resource that can be developed?

M. How well does management know its people?

II. Appraisal

A. Do employees understand organizational goals and their attitudes toward those goals?

B. How do employees perceive the interest of management toward their (employees) individual goals and needs?

C. Do employees feel that effective upward communication exists?

D. What disparities exist between management and subordinate perception of effective communication?

E. Do employees feel that they can air grievances and suggestions without retaliation by others?

F. Do employees feel that they are "recognized" by the communication transmitted?

G. Do superiors feel that they receive the bad news as well as the good?

H. Are all levels of the organization involved in communication activities? (meetings, etc.)

I. Does management acknowledge and act on communication from subordinates?

J. Is "negotiation" between organizational levels a reality and perceived as such by employees?

K. Do employees feel that their communication means something in terms of having a voice in the way work is carried out?

L. Do employees feel that effective communication takes place in performance-appraisal procdures?

M. Do employees feel that they have an opportunity to be heard in the decision-making process?

N. Do employees feel that the communication directed toward them is designed to help them "grow" in their jobs?

O. What types and content of messages are absent according to employees?

P. To what degree does the system meet stated communication desires of employees?

Q. What values are reflected by the communication program?

R. Do employees feel that they get the right information at the right time?

S. What is the perceived communication competence of managers by subordinates?

Part Three: INTEGRATION BETWEEN ORGANIZATIONAL UNITS

I. Description

A. What relationships exist between groups in terms of interdependence?

B. What role does each group play in organizational goals?

C. How differentiated are the various units of the organization?

D. How cohesive are the groups?

E. Is there planned interaction between groups?

F. How much integration is required between units?

G. What mechanisms exist to deal with conflict?

II. Appraisal

A. Are groups aware of interdependence?

B. Do groups understand their role and relationship to other groups?

C. Do groups feel that there is adequate exchange between units?

D. Do groups have a perspective on sub-group and organizational goals?

E. Do groups interact on an informal basis as well as formal?

Part Four: TRANSACTION BETWEEN ORGANIZATION AND ENVIRONMENT

I. Description

A. What type of organization is being examined?

B. What information from the environment is necessary for organizational survival?

C. What kind of communication is being sent to the external environment and for what reasons?

D. What types and forms of communication are used to communicate externally?

E. Does the organization recognize change in the environment and convey such knowledge to its members?

F. Does the organization monitor the effects of external communication?

G. Is relevant information from the external environment conveyed to the proper internal units?

H. Does the organization have the capacity to change on the basis of environmental information?

I. Does the organization serve and diverge clientel with its communication?

J. What image does the organization attempt to project?

II. Appraisal

A. Are all members of the organization aware of the external messages being sent?

B. Do members of the organization feel that the external communication represents an accurate and desirable point of view?

C. Do members of the organization have knowledge of the elements of the external environment that may effect their role or job?

D. Do members of the organization have knowledge of the "large picture" that comes from both internal and external environments?

E. Are members of the organization flexible enough to change on the basis of external information?

F. What is the organization image to its various publics?

G. Are members of the organization aware of societal responsibilities?

H. Are members of the organization responsive to a larger environment?

PART II:APPLICATION OF CONCEPTUAL FRAMEWORK TO MEASUREMENT OF COMMUNICATION

Synopsis: Reported below are the results of our efforts to identify key dimensions or factors that have been studied in previous communication audit research. These dimensions, we feel, can be linked to a core-variable matrix that has cohesion or logical integrity.

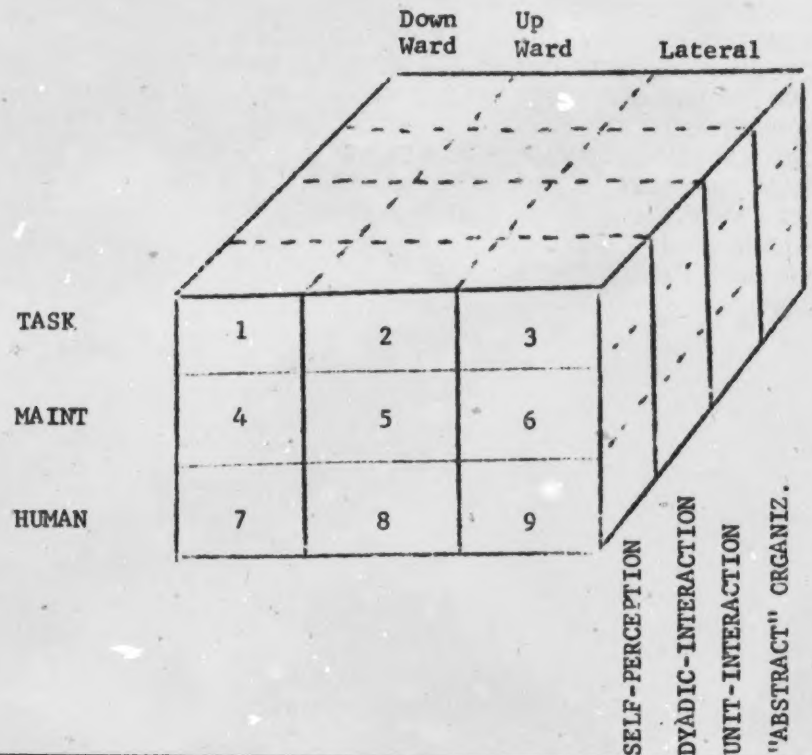
(1.0) Range of object/context choices usually studied for respondent perceptual assessment: (a) self- perception - attitudes, beliefs, values, knowledge, and understanding; (b) dyadic interaction system - superior-subordinate, subordinate-superior, peer-peer; (c) unit interaction system - work group, department, hourly-salaried, line-staff, top management; and (d) "abstract" organization - policies, norms, rules and procedures, and overall "climate."

(1.1) It is worthwhile to note that these four levels for system analysis constitute a hierarchical framework for (a) measuring communication concepts at one level that are unrelated to other levels; (b) crossing communication concepts in matrix fashion among levels; and (c) relating a priori predictions of correspondence of concepts between levels to broader organizational theory.

(1.2) Our consensus is that each item within the variable matrix should be measured using the standard likert criterion, and all items should be worded to obtain "descriptive" responses; in other words, the respondent should be describing organizational "reality" as he perceives it, rather than "feelings" about such. We recommend that the following scalar categories constitute criterion measurement: (a) to a very little extent, (b) to a little extent, (c) to some extent, (d) to a great extent, (e) to a very great extent.

(1.3) Our review of the literature shows that most research has concentrated on the linear exchange of information which impinges upon the individual in one of the four contexts described above (1.0), according to three types of communication content: task, maintenance (regulatory), and people (morale, motivational, appraisal, etc.). We feel that this information vs. linear exhange taxonomy can aid the audit team in the determination of those communication concepts that should be retained as "core" items for the final audit procedure. There are deficiencies with this scheme, we readily admit, but it is compatible with the reports of audit implementations that were surveyed.

(1.4) The following three dimensional display is therefore presented for consideration by the audit team to help us identify significant communication concepts that should be included in our final audit product:



(1.5) To indicate how the display can be used to generate items for communication concepts, take the following example for the concept "information adequacy":

--the area coded "1" above includes downward, task, and the four communication contexts: an appropriate item for the first context "Self-Perception" could be, "to what extent are you provided sufficient information to accomplish your job effectively?" An appropriate extension of this item for the second context "dyadic-interaction" could be" . . . provided sufficient information by your superior. . . ."--and so on.

--this procedure has an important advantage in that it can help us (and did help our team) eliminate items that have "face" ambiguity because of multiple classification potential across information dimensions and message contexts.

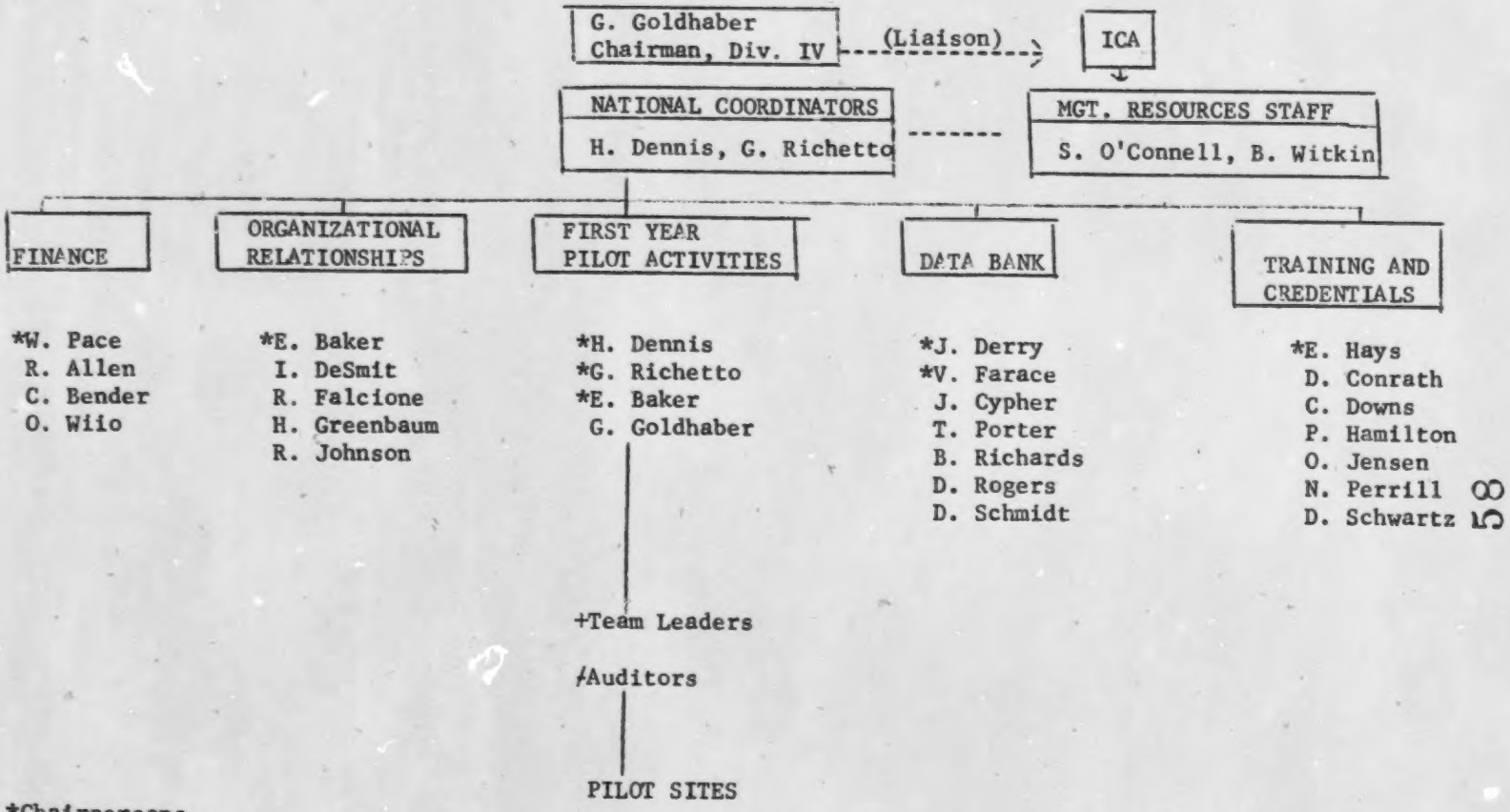
(1.6) The results of our review of communication concepts that have been most frequently studied in audit research are reported below. Although not included in this report, we have available with us a cross-section of items that have been used to measure these concepts. Our recommendation is that a committee be appointed during the Tuesday meeting to study the application of these concepts--using the three dimensional display in the manner that has been described:

INFORMATION ACCESSIBILITY
PERCEIVED INFORMATION ADEQUACY
PERCEIVED MESSAGE BELIEVABILITY (AND SOURCE CREDIBILITY)
PERCEIVED TRUST AND CONFIDENCE IN COMMUNICATION RELATIONSHIPS (OPENNESS)
PERCEIVED COMMUNICATION CLIMATE
COMMUNICATION SATISFACTION
PERCEIVED CONGRUENCE OF COMMUNICATION PERSPECTIVES
COMMUNICATION CONTENT: CLARITY, ACCURACY, RELEVANCE, TIMELINESS
LOCUS AND EXTENT OF PARTICIPATION IN PROBLEM SOLVING AND DECISION-MAKING
COMMUNICATION SUPPORTIVENESS
KNOWLEDGE OF PERFORMANCE EXPECTATIONS

APPENDIX 2

ORGANIZATIONAL STRUCTURE FOR PHASE II-ICA COMMUNICATION AUDIT

PROPOSED ORGANIZATIONAL STRUCTURE FOR PHASE II, PILOT STUDIES:



*Chairpersons

/ +Selected according to interest, availability, experience, and geographic location.

APPENDIX 3

SYNOPSIS OF ICA COMMUNICATION AUDIT PLAN

SYNOPSIS OF ICA COMMUNICATION AUDIT PLAN

Introduction

Under the direction of Dr. Gerald M. Goldhaber (Vice President and Chairman, Division IV, of the International Communication Association) and Dr.'s Harry S. Dennis and Gary M. Richetto (National Co-Coordinators of the Communication Audit Project), an audit plan was developed. This synopsis will cover the following audit considerations:

1. Purpose and objectives of the audit.
2. How the audit would be accomplished.
3. Key audit logistics and timetable.
4. Form of audit feedback of results.
5. Typical kinds of audit follow-up.

Purpose and Objectives of Audit

Like an accounting audit, the communication audit is designed to essentially photograph an organization's system of communication at a given point in time. A host of important communication variables and concepts are examined so that strengths and weaknesses in the system of communication can be identified. These "benchmarks" can then be evaluated diagnostically to determine if actual or perceived communication practices and activities correspond to those considered in the best interest of effective and efficient organizational functioning.

The specific objectives for establishing this project for the ICA are to:

1. Establish a normed data bank to enable comparisons to be made between organizations on their communication systems;
2. Establish, through these comparative studies, a general external validation of many organizational communication theories and propositions;
3. Provide research outlets for faculty and professionals and graduate students;
4. Establish the ICA as a visible center for organizational communication measurement.

The client (or host) organization gains from the audit in the following ways:

1. verbal summaries or successful/unsuccessful critical communication incidents are produced;
2. maps of the operational communication network are generated (as opposed to the hypothesized net predicted from organization charts)--frequencies of who talks to whom, about what, for how long, using what medium, at whose initiation, and with what success--are also calculated.
3. profiles of feelings and perceptions of communication events, practices and relationships are obtained.
4. comparisons of perceptions of communication behaviors with the actual behaviors are presented; and

5. benchmarks on communication behaviors and perceptions to be used for possible pre-post measurement to diagnose organizational change or development (or to diagnose specific organizational changes needed) are developed.

How the Audit Would be Accomplished

The audit procedure employs four tools: (a) questionnaire survey; (b) interview schedules; (c) critical communication experiences technique; (d) communication network analysis and a communication diary. Each tool is described below.

Questionnaire Survey

Respondents participating in the audit are asked to complete an anonymous questionnaire composed of seven communication (or communication-related) dimensions:

1. Kinds of information (specific types of DOWNWARD AND HORIZONTAL communication that can be received in the organization)

2. Kinds of information (specific types of UPWARD communication that can be sent in the organization)

3. Sources of information (specific sources for receiving information in the organization)

4. Quality of information (in terms of timeliness, accuracy, utility and excessiveness)

5. Channels of communication (means of communicating information in the organization)

6. Organizational communication relationships (including such communication related concepts as trust, openness, management credibility, upward influence, listening receptivity and responsiveness, conflict, peer rapport, participation in decision-making, information adequacy, and knowledge of job goals)

7. Organizational outcomes (outcomes reflecting satisfaction with a number of job-related aspects, including selected concerns for perceived organizational effectiveness)

Local Input. The local organization is invited to submit survey input that will help customize this portion of the audit to meet their particular needs.

Interview Schedules

Members of the organization are asked to participate in one-on-one interviews--the principal purpose of which is to corroborate and/or expand upon concerns reported in other audit instruments. The interview technique provides additional valuable information that other tools used in the audit procedure may not uncover. Two interview schedules have been devised to accomplish this aim: one that is structured to provide exploratory information, using open-ended questions; and a follow-up guide which is specifically tailored to each organization to explain findings revealed through the use of other audit tools.

Communication Experiences Technique

This technique results in the collection (and subsequent classification) of significant successful (effective) and unsuccessful (ineffective) communication episodes that have occurred in the organization. People are asked to report "outstanding" incidents (in one or both the categories mentioned above) involving communication that they actually experienced in the organization. These data add richness to, and frequently provide explanations for, information obtained from other audit tools.

Communication Network Analysis

Organizational charts are used to prescribe ways that people in the organization should communicate with one another in order to accomplish their tasks. Commonly, however, the ways that people actually do communicate differ from the so-called prescribed "chain of command." These networks of actual communication behavior can be very revealing in terms of the real communication and power dynamics occurring in the organization. We employ two techniques to facilitate this analysis:

1. The diary method - each audit participant is asked to maintain a diary of specified communication activities (conversations, phone calls, written materials received and sent, etc.) over a one-week period. Cumulative time required per person for the entire week is approximately 1½ hours. Forms are provided to simplify the recording of these communication events.

2. The Questionnaire format - this method requires that participants "recall" significant communication activities occurring within (typically) a week before the recall exercise. A simple form is provided which breaks down conversations into meaningful recording units; and, usually this method can be administered in group settings under the direction of a qualified assistant. Total time required is about 30 minutes.

Key Audit Logistics & Timetable

In order to complete the communication audit within a reasonable time-frame, usually the following timetable is suggested (4-5 months):

Week	Event
1-4	Negotiate contract; agree on instruments, resources needed and available; preparation of instruments.
5	Conduct exploratory interviews.
6-7	Analyze exploratory interviews.
8	Administer survey, critical communication experiences, and network analysis questionnaire.
9-13	Analyze survey, critical experiences and network data; prepare follow-up interview guide; prepare communication diary.
14-15	Conduct follow-up interviews Administer communication diary
16-20	Analyze interview and diary data. Prepare final report and recommendations.
21	Present final report. Discuss future steps.

Feedback of Results

The results of the audit are reported (in verbal and written form) to appropriate personnel. Results are prepared in accordance with customary conventions for the reporting of survey-participant data (i.e., percentages, tabular presentations, and content summaries). Unless specifically requested, descriptive statistics are the only calculations applied to the data. Finally, summaries and a set of general conclusions and recommendations are provided.

Typical Kinds of Audit Follow Up

1. After top management has reviewed the results, the data are commonly shared next with other subordinate supervisory personnel in the organization.

2. The findings of the audit (both favorable and unfavorable) are condensed and distributed to all members of the organization.

3. A committee is typically formed to study the audit results and make recommendations to management.

4. An action program is undertaken to implement recommendations approved in "3" above.

Budget

Typical budget items include:

1. Travel, food, and lodging.
2. Typing and printing.
3. Computer coding, keypunching, and processing.
4. Telephone.
5. Research team compensation.

APPENDIX 4

MANAGEMENT PLAN FOR CONDUCTING THE ICA COMMUNICATION AUDIT

Management Plan for Conducting the ICA Communication Audit

I. Contact and Contract Client Organization

A. Send promotional literature (synopsis, letters, brochures, announcements)
B. Send sample of instruments (if interested) and a general proposal
C. Attend meeting with top management and audit personnel (discuss procedures, deadlines, resources, personnel)
D. Finalize contract (letter of agreement) specifying procedures, resources, deadlines, budget

II. Mobilize Resources

A. Client Organization

1. Appoint local liaison
2. Budget money
3. Arrange for access to necessary documents and personnel
4. Schedule necessary time commitments
5. Arrange for necessary space commitments (meetings, interviews, survey collection, feedback sessions, etc.)
6. Arrange for necessary clerical support (typing, xeroxing, secretarial)
7. Arrange schedules for surveys, interviews, etc.
8. Arrange housing, boarding and transportation of auditors

B. Local Support Agency (university, firm, private researchers)

1. Arrange for necessary students, faculty, researchers
2. Arrange for possible coding and keypunching assistance as well as computer back-up
3. Arrange for analysis of interview data and, if necessary, coding critical incidents
4. Arrange for interpretation of audit data and assistance in writing the report

C. Audit Central

1. Approves audit, appoints project manager
2. Prepares and schedules time for analyzing and storing data for audit (hires coders, keypunchers, as needed)

III. Pre-plan for audit

A. Get client organization input on instruments and procedures
B. Plan and review audit on-site logistics
C. On-site inspection of organization's resources (by local personnel)
D. Diffuse throughout the organization information about audit (using newsletters, meetings, key persons, union, etc.)
E. Develop pre-audit checklist (with target dates)
F. Collect a budget in advance from client
G. Guarantee smooth coordination with local support agency

IV. Conduct Audit

A. Conduct exploratory interviews (visit 1: n=10-20, with 2-3 auditors in 2-3 days)

1. Use pre-designed 2 hour interview guide (open-ended plus get data on key interactions and typical topics---for designing network analysis instrument)
2. Gather supporting documents (organization chart, roster of personnel, job descriptions, map of organization)
3. Interview key personnel (leaders, liaisons, gatekeepers, "problems")

B. Analyze exploratory interviews and prepare instruments for visit 2

1. Synthesize interviews (conclusions, summary of responses for each question, raw data--all answers to each question)
2. Prepare network analysis instrument, based on interview data
3. Pre-code survey answer sheets, network instruments, and critical incident forms---use same code number for all three instruments.
4. Print instruments

C. Visit 2: Administer survey, network, critical incident instruments (1-3 days, if logistics allow most personnel to assemble)

1. Survey: use census or sample; allow 1/2 hour; face-to-face administration
2. Network Analysis: use census; allow 1/2 hour; explain clearly
3. Critical incident: use census or sample; train adequately; use category form first, then collect incidents--allows coding of incidents by clients; allow 1/2 hour

D. Analyze survey, network, critical incident data and prepare follow-up interview guide and diary, if needed

1. Survey and network data analyzed in Buffalo; results sent to audit team for interpretation and report-writing
2. Critical incident data summarized by audit team
3. Follow-up interview guide (based upon survey, network and critical incident data) prepared by one auditor; selection of interviewees based upon network analysis results
4. Diary (if used) prepared at Buffalo; loggers determined from network analysis data

E. Visit 3: Administer follow-up interviews and diary, if used.

1. Conduct follow-up interviews (n=20-25; 2-3 hours/interview; use 3 interviewers for 3-4 days); may collect more critical incidents. (If using diary, collect input from clients on appropriate cross-breaks used in analyzing diary data).
2. Train loggers (after interviews completed)
3. Begin diary (for one week, minimum) of loggers; monitor with available auditors

F. Analyze follow-up interviews and diary (if used), and prepare final report

1. Synthesize interview data (using same format as before); done by same auditor who did earlier interview synthesis
2. Code, keypunch and process diary data at Buffalo; prepare cross-breaks; data sent to project manager
3. Project manager prepares final report, with general recommendations. Report should follow format: conclusions; recommendations; appendix (with all data)

V. Disseminate Audit Results

A. Reports and all data go to Buffalo for storage in data bank

B. Copies of reports only go to auditors, other credentialled auditors, ICA Audit committee, and client organization

C. Client audit committee begins to generate additional recommendations and evaluate the original ones

D. Client audit committee receives input from organization on report and recommendations

E. Visit 4: audit team meets with audit committee of organization to explain report and recommendations

F. Report diffused throughout organization (via newsletters, meetings, feedback sessions, etc.)

APPENDIX 5

FEEDBACK SESSIONS FORMAT FOR ICA COMMUNICATION AUDIT

Feedback Sessions Format for the ICA Communication Audit

I. Prior to feedback session

A. Prepare client audit committee

1. Send them an agenda with an explanation of tasks along with the final report (i.e., explain rating scale to be used in prioritizing recommendations).
2. Give client a coding sheet for ratings to facilitate summarizing their recommendations.
3. Have client read report and attach ratings in advance of session, according to criteria of money, time, people, urgency, personal commitment, etc.

B. Separate behavior of rating the "problems" from rating the "recommendations".

1. Give the client the conclusions on the separate problems (referenced according to appendices, tables, etc.) then have them rate the problems.
2. Give the client the recommendations derived from the separate problems (referenced to each problem) and then have them rate the recommendations.

C. Have clients generate (individually) other recommendations (and link them to specific problems) in advance, and attach a priority to them (they can use the Dennis model).

D. Facilitators, in advance, prepare standard work sheets for calculating sums, means, ranks, priorities, and prepare either overhead transparencies or flip-chart sheets with key words, column headings, so all left to do is assign problems or recommendations and their priorities.

E. Facilitator prepares, in advance, transparencies or flip charts on findings and recommendations (generated in final report).

II. During Feedback Session (in small groups, with minimum of two facilitators)

A. Summarize key conclusions and recommendations (facilitator does this in 15 minutes, using prepared flip charts or transparencies).

B. Clients submit both their ratings (for problems and recommendations) to 1 facilitator (who compiles means, etc. on a flip chart) while another facilitator solicits and writes on flip chart new recommendations---takes about 1/2 hour.

C. Both facilitators lead discussion on reactions of clients to problems and recommendations (to be summarized anonymously and later sent to top management) (about 15 minutes).

D. Both facilitators lead discussion on old recommendations and solicit ratings on new ones (15 minutes).

E. First facilitator collects from clients written statements specifying "implementation steps to be taken" for key recommendations while second facilitator prepares flip chart of priorities for new recommendations (15 minutes).

F. Both facilitators lead discussion on new recommendations, using flip charts, and collecting "implementation steps"; these are attached to summary recommendations of priorities (15 minutes).

G. Session concludes by summarizing the day, the importance of follow-up, outlining next steps (e.g., using the audit committee in follow-up, typing summaries of each part of the session and giving it to all participants and top management, meeting with top management, explaining the need for follow-up and action plans to help during follow-up, etc.).

H. Audit director submits post-audit letter of appreciation to organization's CEO.

- -

Dennis Model for Systematizing Feedback of Recommendations to Audit Clients

A Recommendation May:	Attitudes or Feelings	Specific Behaviors	Events, Practices or Activities	Skills: Individual or Group
Sustain	1*	2	3	4
Create	X 5	6	7	X 8
Change	X 9	10	11	12
Eliminate or Discontinue	X 13	14	15	16

*Numbers are for identification purposes only

NOTE: Identify the difficulty level associated with implementing a given recommendation.

X = hardest to implement due to needed resources (time, money, personnel)

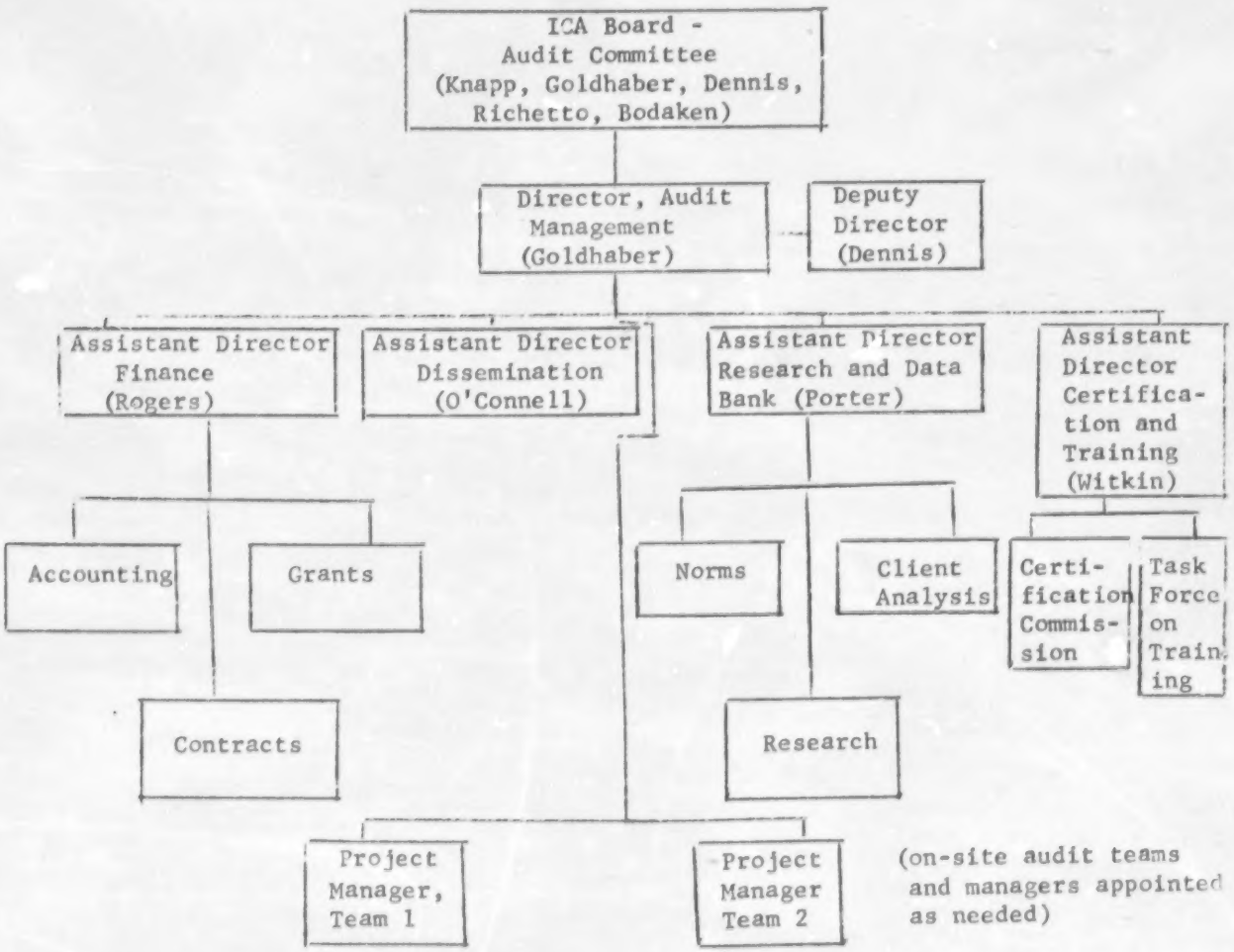
APPENDIX 6

CURRENT ORGANIZATIONAL STRUCTURE FOR ICA COMMUNICATION AUDIT

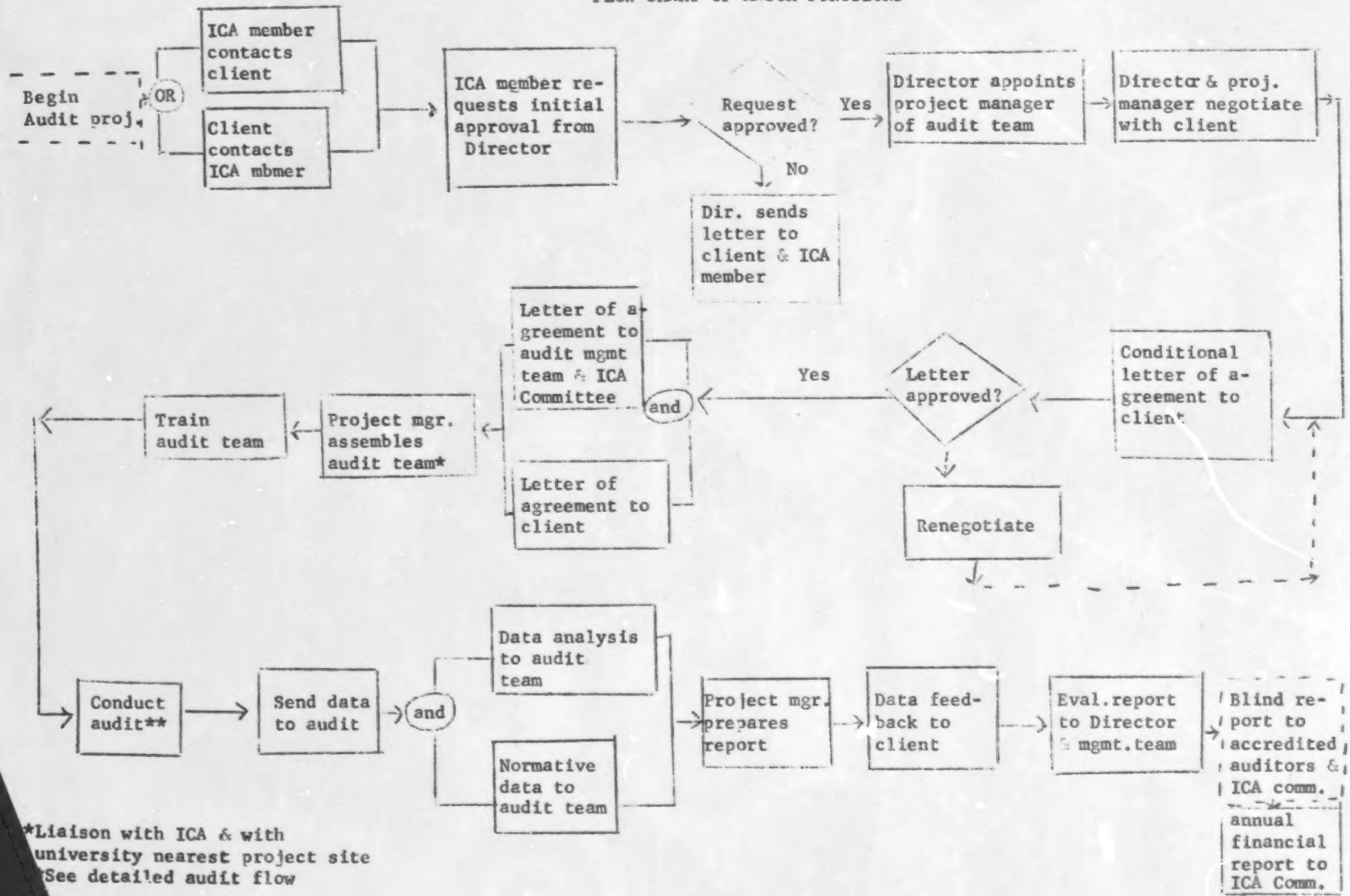
ICA COMMUNICATION AUDIT: ORGANIZATION STRUCTURE

The following organizational structure, job positions and duties, and audit management flow chart were approved by the ICA Board of Directors September 27, 1975. The structure delineates responsibilities and lines of authority, demonstrates relationships and accountability, and channels for appropriate management communication for all audit personnel.

In addition, the management plan is intended to maintain accountability to ICA, to provide a forum for information and policy discussion, and to ensure that the audit stays within the restraints of a non-profit organization. Although this structure appears formidable, it is highly appropriate and useful as the audit moves out of the pilot phase and into the development of the data bank. This package is the result of over a year's thinking and has gone through several revisions, both from a conceptual standpoint and as pilot audits provided us with information on management requirements. The primary persons responsible for its development are Sandra O'Connell and Belle Ruth Witkin.



FLOW CHART OF MAJOR FUNCTIONS


Begin Audit proj.
OR
ICA member contacts client
Client contacts ICA mbmer
ICA member requests initial approval from Director
Request approved?
Yes
No
Director appoints project manager of audit team
Director & proj. manager negotiate with client
Dir. sends letter to client & ICA member
Letter of agreement to audit mgmt team & ICA Committee
and
Letter of agreement to client
Yes
Letter approved?
Conditional letter of agreement to client
Renegotiate
Project mgr. assembles audit team*
Train audit team
Conduct audit**
Send data to audit
and
Data analysis to audit team
Normative data to audit team
Project mgr. prepares report
Data feedback to client
Eval. report to Director & mgmt. team
Blind report to accredited auditors & ICA comm.
annual financial report to ICA Comm.

*Liaison with ICA & with university nearest project site

**See detailed audit flow

APPENDIX 7

CREDENTIALING PROCEDURE FOR THE ICA COMMUNICATION AUDIT

ICA COMMUNICATION AUDIT: CREDENTIALING PROCEDURE

Each candidate's qualifications will be reviewed upon submission of supporting evidence to the Audit Certification and Training Committee. Credentialed auditors are assumed capable of teaching and certifying other potential auditors. Only credentialed auditors will be allowed to direct and manage an ICA Communication Audit. This procedure will take effect January 1, 1976.

To become credentialed, a candidate must possess the following:

1. Experience: Have demonstrated competencies in the field of organizational communication teaching, research or practice.

   Evidence: Submit vita and two letters of recommendation from persons qualified to assess the candidate's professional experience in the field of organizational communication.

2. Knowledge: Know the history, objectives, procedures and management of the ICA Communication Audit.

   Evidence: Participate in an official ICA Communication Audit workshop held at ICA or related meetings by credentialed auditors; or participate in two or more ICA Communication Audits.

3. Behavior: Demonstrate the specified communication audit skills (negotiate with an organization, design an audit management plan, assemble a qualified audit team, obtain necessary resources, implement the audit plan, analyze and interpret the data, write the report, provide feedback and recommendations to the organization).

   Evidence: Participate in at least one ICA Communication Audit under the supervision of a certified Communication Auditor; receive favorable written evaluations by the Audit project manager and at least one other ICA certified auditor of the candidate's proficiency in the specified audit skills.

Candidates desiring more information about the credentialing process should contact: Belle Ruth Witkin, 1450 Avila Ct., Hayward, California 94544

APPENDIX 8

OUTLINE FOR ICA COMMUNICATION AUDIT WORKSHOP

OUTLINE FOR ICA COMMUNICATION AUDIT WORKSHOP

1. Require advance registration; limit enrollment to 30 persons/2trainers.

2. Mail audit materials to all registrants one month prior to workshop (instruments, management plan, organizational structure, feedback session outline, synopsis).

3. During workshop, use an overhead projector, screen, aisle, chalkboard.

4. Follow this outline: (Total time: 9 1/2 hours plus breaks)

   a. History and objectives of audit; audit organizational structure (refer to organizational structure and synopsis documents; use overhead projector; possibly distribute history document, if available) Time: 1 hour.

   b. Logistics and procedure for conducting an audit (refer to management plan, synopsis and feedback session document; use overhead projector) Time: 1 1/2 hours.

   c. Instruments in audit (advance preparation plus workshop simulation) Time: 5 hours.

      1) Survey - participants fill out a copy prior to coming to workshop; at workshop, given data from sample audit; in groups, they must interpret the data and draw conclusions; additionally, in groups, they must decide, given certain organizational data, what the best sampling plan should be for a survey administration. (Time: 1 hour)

      2) Interview - participants fill out interview guide in advance (thinking about their own organizations); trainers role play various E's and give each participant a chance to use some of the questions in simulated interviews, critiqued by other participants and trainers. (Time: 1 hour)

      3) Communication Experiences - participants fill out forms in advance, providing one example from their own organization; trainers present sample incidents for trainees; in groups, to code as effective or ineffective and place in appropriate categories. (Time: 1 hour)

      4) Network Analysis - participants have read instruments in advance and filled out a blank network form, thinking about their own organization; trainers present sample network data and help interpret it for entire group; questions about interpretation answered by trainers. (Time: 1 hour)

      5) Communication Diary - participants read instruments and examples in advance; trainers give additional examples and brief quiz on completing log sheet; in groups, practice provided for logging on-going communication behaviors; interpret sample diary data, in groups. (Time: 1 hour)

   d. Feedback Session: a video session is shown and discussed; audit data provided (conclusions) and, in groups, trainees provide recommendations (according to Dennis' model). (Time: 2 hours)